

ABSTRACT

A method of testing and a tester apparatus to determine the axial stress and strain of cements under the temperature and pressures encountered by cement during use in wellbore environments. Using these stress and strain measurements, the
5 Young's Modulus may be established for a material at the encountered temperature and pressure of the wellbore. By combining static tensile strength testing and elasticity measurements of cements, Young's Modulus values for different cement compositions under stresses that are similar to the conditions occurring in an actual wellbore are possible.

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